

Mioko Harada Masaaki Mori

<120> Body weight gain inhibitor

<130> 61536 (46342)

<140> 10/500,175

<141> 2004-06-25

<150> PCT/JP01/13781

<151> 2002-12-27

<150> JP2001-403260

<151> 2001-12-28

<150> JP2002-93096

<151> 2002-03-28

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<220>

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ctccgagcca	ctgccgttcc	tctatgtgct	cctgcccgcc	gtgtactccg	ggatctgtgc	180
tgtggggctg	actggcaaca	cggccgtcat	ccttgtaatc	ctaagggcgc	ccaagatgaa	240
gacggtgacc	aacgtgttca	tcctgaacct	ggccgtcgcc	gacgggctct	tcacgctggt	300

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His Asn Ala Thr Phe Ser Glu Pro Leu Pro Phe Leu Tyr Val Leu Leu
                            40
Pro Ala Val Tyr Ser Gly Ile Cys Ala Val Gly Leu Thr Gly Asn Thr
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Ala Val Ile Leu Val Ile Leu Arg Ala Pro Lys Met Lys Thr Val Thr
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                                        75
Asn Val Phe Ile Leu Asn Leu Ala Val Ala Asp Gly Leu Phe Thr Leu
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                                    90
Val Leu Pro Val Asn Ile Ala Glu His Leu Leu Gln Tyr Trp Pro Phe
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Gly Glu Leu Leu Cys Lys Leu Val Leu Ala Val Asp His Tyr Asn Ile
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Phe Ser Ser Ile Tyr Phe Leu Ala Val Met Ser Val Asp Arg Tyr Leu
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Val Val Leu Ala Thr Val Arg Ser Arg His Met Pro Trp Arg Thr Tyr
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Arg Gly Ala Lys Val Ala Ser Leu Cys Val Trp Leu Gly Val Thr Val
Leu Val Leu Pro Phe Phe Ser Phe Ala Gly Val Tyr Ser Asn Glu Leu
                                185
Gln Val Pro Ser Cys Gly Leu Ser Phe Pro Trp Pro Glu Gln Val Trp
                            200
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Phe Lys Ala Ser Arg Val Tyr Thr Leu Val Leu Gly Phe Val Leu Pro
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                                            220
Val Cys Thr Ile Cys Val Leu Tyr Thr Asp Leu Leu Arg Arg Leu Arg
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Ala Val Arg Leu Arg Ser Gly Ala Lys Ala Leu Gly Lys Ala Arg Arg
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Lys Val Thr Val Leu Val Leu Val Leu Ala Val Cys Leu Leu Cys
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Trp Thr Pro Phe His Leu Ala Ser Val Val Ala Leu Thr Thr Asp Leu
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Pro Gln Thr Pro Leu Val Ile Ser Met Ser Tyr Val Ile Thr Ser Leu
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295

300

290

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ucaggcacga guuggcguag cugaggcugg ugaugacgua ggacauacug augaccagug
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tgtaccacgc gccggagggc agcggcagca ggagcagaag cagcagcagt gccagccgcg
                                                                    120
geoggetege gggagecece egeteecetg ggegeeaege cagggegete gegtegaegg
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ccgcccggcg gggcgggcca cgaaccggct cggctggggt tgggcgcgca gtggagttgg
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gacgcccagg taccggagcg caggaggctg gaggcgagcc gtgggtcccc tgcaggccca
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gctataaccg ctcggtggcc ccgcctcgtt ccgcccctc agtaccgctg ggctccccag
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quadcadtdc cadccdcddc cddctcdcdd gagccccccd ctcccctddd cdccacdcca
                                                                 180
gggcgctcgc gtcgacggcc gcccggcggg gcgggccacg aaccggctcg gctgggtttg
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                                                                 120
180
gggcgctcgc gtcgacggcc gcccggcggg gcgggccacg aaccggctcg gctgggtttg
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ggcgcgcagt ggagttggga cgcccaggta ccggagcgca ggaggctgga ggcgagccgt
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gggtcccctg caggcccagc tataaccgct cggtggcccc gcctcgttcc gccccctcag
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teccetggge gecaegeagg getacagegt egaeggeege eegeggggee ategeaaceg 180
gctcggctgg gtttgggcgc gcagtggagt tgggacgccc aggtaccgga gcgcaggagg 240
ctggaggcga gccgtgggtc ccctgcaggc ccagctataa ccgctcggtg gccccgcctc 300
gttccgcccc ctcagtaccg ctgggctccc cagaatgggg gagggacgga gggaggagag 360
qqaaccctqq caqct
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<213> Homo sapiens
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cccctgctac cgctactgct gcttctnctc ttgctacctc tgcccgccag cgcctggtac
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aagcacgtng cgagccctcg ctatcacaca gtnggtcgtg cctccgggct gctcatnggg
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ctgcgccgnt cgtcctacct
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eggetggeae tgetgetget tetgeteetg etgeegetge eeteeggege gtggtacaag 180
cacgtggcga gtccccgcta ccacacggtg ggccgcgccg ctggcctgct catggggctg 240
cgtcgctcac cctatctgtg gcgccgcgcg ctgcgcgcgg ccgccgggcc cctggccagg 300
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Leu Leu Pro Leu Pro Ser Gly Ala Trp Tyr Lys His Val Ala Ser
Pro Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu
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Arg Arg Ser Pro Tyr Leu Trp Arg Ala Leu Arg Ala Ala Ala Gly
                85
                                    90
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Pro Leu Leu Pro Ser Trp Val Gln Glu Leu Trp Glu
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Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp Arg Arg
Ala Leu Arg Ala Ala Ala Gly Pro Leu Ala Arg Asp Thr Leu Ser Pro
Glu Pro Ala Ala Arq Glu Ala Pro Leu Leu Pro Ser Trp Val Gln
Glu Leu Trp Glu Thr Arg Arg Ser Ser Gln Ala Gly Ile Pro Val
Arg Ala Pro Arg Ser Pro Arg Ala Pro Glu Pro Ala Leu Glu Pro Glu
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<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 44
tgagcgacgc agccccatga gcag 24
<210> 45
<211> 235
<212> DNA
<213> Sus scrofa
<400> 45
cgacacccct gcgcccagac cctccggagc cagttcctgg tccgccccgc cgggagccgt
                                                                    60
cagcatgaac ccccgggcac gcggcatggg agcgcggggc ccgggaccgg gggccactgc 120
gaggegeegg etgetggeat tgetgttaet getgetgetg etgeegetge eegeeegtge 180
ctggtacaag cacacggcga gtccccgcta ccacacggtg ggccgcgccg cgggc
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<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 46
cagcggcagc agcagcagca gtaa 24
<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 47
cagcagtaac agcaatgcca gcag 24
<210> 48
<211> 156
<212> DNA
<213> Sus scrofa
<400> 48
ctgtagcctc ccgcgctgcg gcttcccgac acccctgcgc ccagaccctc cggagccagt
                                                                    60
tectggteeg eeeegeeggg ageegteage atgaaceee gggeaegegg eatgggageg
                                                                    120
                                                                    156
cggggcccgg gaccggggc cactgcgagg cgccgg
```

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<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 49
cggctgctgg cattgctgtt actg 24
<210> 50
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 50
cgcccgtgcc tggtacaagc aca 23
<210> 51
<211> 588
<212> DNA
<213> Sus scrofa
<400> 51
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gctcgcccta catgtggcgc cgcgcgctgc gcccggcggc cgggcccctg gcctgggaca 120
ctttcggcca ggacgtgccc cctcggggac cctccgccag gaacgccctc tctccggggc 180
ccgcccctcg cgacgctccg ctgcttcccc ccggggttca gacactgtgg caggtgcgac
geggaagett eegeteeggg ateeeggtea gtgegeeeeg eageeegge geeegggggt
ccgagccgca accggaattg ggcgcctctt cctggacctc ggcggagtag accagagcct
teggagagte tteageteag eggtggtetg egcagggaac egeettegee ageeceegee 420
tegeceeage gteagageeg acetgatege ggeeeeggeg gegeggeeee gegeetggee 480
cccgcggagt ctcttcgcgc ccccaggccg gccgtctggt caataaaacc cgcctagttc 540
                                                                 588
<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 52
ttcccgacac ccctgcgccc agac 24
<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
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<400> 53
gggctggcga aggcggttcc ctgc 24
<210> 54
<211> 565
<212> DNA
<213> Sus scrofa
<400> 54
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geggeatggg agegegggge eegggaeegg gggeeaetge gaggegeegg etgetggeat
tgctgttact gctgctgctg ctgccgctgc ccgccgtgc ctggtacaag cacacggcga
gteccegeta ccacaeggtg ggeegegeeg egggeetget catggggetg egeegetege
cctacatgtg gcgccgcgc ctgcgcccgg cggccgggcc cctggcctgg gacactttcg
gccaggacgt gcccctcgg ggaccctccg ccaggaacgc cctctctccg gggcccgccc
ctcgcgacgc tccgctgctt ccccccgggg ttcagacact gtggcaggtg cgacgcggaa
getteegete egggateeeg gteagtgege eeegeageee gegegeeegg gggteegage
                                                                    480
cgcaaccgga attgggcgcc tcttcctgga cctcggcgga gtagaccaga gccttcggag
                                                                   540
agtetteage teageggtgg tetge
<210> 55
<211> 159
<212> PRT
<213> Sus scrofa
<400> 55
Met Asn Pro Arg Ala Arg Gly Met Gly Ala Arg Gly Pro Gly Pro Gly
                                    10
Ala Thr Ala Arg Arg Arg Leu Leu Ala Leu Leu Leu Leu Leu Leu
                                25
Leu Pro Leu Pro Ala Arg Ala Trp Tyr Lys His Thr Ala Ser Pro Arg
                            40
                                                45
Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu Arg Arg
Ser Pro Tyr Met Trp Arg Arg Ala Leu Arg Pro Ala Ala Gly Pro Leu
                    70
                                        75
Ala Trp Asp Thr Phe Gly Gln Asp Val Pro Pro Arg Gly Pro Ser Ala
Arg Asn Ala Leu Ser Pro Gly Pro Ala Pro Arg Asp Ala Pro Leu Leu
Pro Pro Gly Val Gln Thr Leu Trp Gln Val Arg Arg Gly Ser Phe Arg
                            120
                                                 125
Ser Gly Ile Pro Val Ser Ala Pro Arg Ser Pro Arg Ala Arg Gly Ser
                        135
                                            140
Glu Pro Gln Pro Glu Leu Gly Ala Ser Ser Trp Thr Ser Ala Glu
145
<210> 56
<211> 23
<212> PRT
<213> Sus scrofa
<400> 56
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                    10
Ala Gly Leu Leu Met Gly Leu
            20
```

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<210> 57
<211> 30
<212> PRT
<213> Sus scrofa
<400> 57
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                              10
Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Met Trp
                           25
                                            30
          20
<210> 58
<211> 69
<212> DNA
<213> Sus scrofa
<400> 58
                                                          60
69
atggggctg
<210> 59
<211> 90
<212> DNA
<213> Sus scrofa
<400> 59
60
                                                          90
atggggctgc gccgctcgcc ctacatgtgg
<210> 60
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 60
cgttctcggg gacataaacc ctg 23
<210> 61
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 61
atgagcagcc cggaggcacg acc 23
<210> 62
<211> 188
<212> DNA
<213> Rattus norvegicus
<400> 62
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```
ttcttgtcct aaccegecaa ggggccatgg acttgagege getggegteg agcagagaag
 tacggggccc tgggcccggg gctccggtga accggcccct gctaccgcta ctgctgcttc
                                                                     120
 tgctcttgct acctctgccc gccagcgcct ggtacaagca cgtggcgagc cctcgctatc 180
                                                                     188
 acacagtg
 <210> 63
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 63
 atgagcagcc cggaggcacg acc 23
/ <210> 64
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 64
 actgtgtgat agcgagggct cgc 23
 <210> 65
 <211> 615
 <212> DNA
 <213> Rattus norvegicus
 <400> 65
 ctcagagctg tactaggcag gaagagggac ggccctcagg gaagggtggc cctatgctta
                                                                      60
 aaactttcct gtctcctctc cataagtgct ccacttgtag caactcctac caagggggca 120
 teettttgee eetggeagee cateettgta ttetgagaee atgeatggta ceagaactee 180
 ctccctgaca gttcccttcc tgggggcgag gaaagggtaa gcaaggagat cccccactaa 240
 agetteaage geagteeage ttgegateta eteattggga ggettetage taccegggtt 300
 contettete entectete catestecte teenttggge atgtgeegeg ggggegagee 360
 qqqqqqqqc cattqaqaaq ctqtaqtcqc accaactgac tagtctcttc catcctccgg 420
 ageteegacg ttetegggga cataaaccet gttettgtee taaccegeca aggggecatg 480
 qacttqaqcq cqctqqcqtc qaqcaqaqaa qtacqqqqcc ctqqqcccqq qqctccqqtg 540
 aaccggcccc tgctaccgct actgctgctt ctgctcttgc tacctctgcc cgccagcgcc 600
                                                                     615
 tggtacaagc acgtg
 <210> 66
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 66
 cgttctcggg gacataaacc ctg 23
 <210> 67
 <211> 24
```

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<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 67
cgagccctcg ctatcacaca gtgg 24
<210> 68
<211> 497
<212> DNA
<213> Rattus norvegicus
<400> 68
gtcgtgcctc cgggctgctc atggggctgc gccgctcgcc ctacctgtgc cgccgtgcct
tgggtggggc cgctggaccg ctcgtggggc tcccgggaca gatggcccgc agcgctctcc
                                                                    120
tgcttccttc ccccgggcag gagctgtggg aggtacgaag caggagttca ccggcaggac
                                                                    180
ttcccgtgca tgcaacccgg agtctgcggg acctggaggg agccggccaa cctgagcagt
                                                                    240
cgctaagctt tcagtcctgg acttcagcag agcccgctgc tagagccttc ggtgagacgc
ttcgtgccca gccatggttc ctgcagcaaa tcatctttgc cgatcctgtc aggctcgacg
accgtctcaa gaaccgatgg cgccccgtg cttgacctaa gcaggagcac agcttgtagc
                                                                   420
tccagtcagg tctcgttgtc tggtcaataa aatcactctg attcccaaaa aaaaaaaaa 480
aaaaaaaaa aaaaaaa
                                                                    497
<210> 69
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 69
ggggcgggc cattgagaag c 21
<210> 70
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 70
tgaccagaca acgagacctg a 21
<210> 71
<211> 684
<212> DNA
<213> Rattus norvegicus
<400> 71
tgtagtegea ceaactgact agtetettee atceteegga geteegaegt teteggggae
ataaaccctg ttcttgtcct aacccgccaa ggggccatgg acttgagcgc gctggcgtcg 120
agcagagaag tacggggccc tgggcccggg gctccggtga accggcccct gctaccgcta 180
ctgctgcttc tgctcttgct acctctgccc gccagcgcct ggtacaagca cgtggcgagc 240
cetegetate acacagtggg tegtgeetee gggetgetea tggggetgeg cegetegeec 300
```

420

480

540

600

684

```
tacctgtggc gccgtgcctt gggtggggcc gctggaccgc tcgtggggct cccgggacag
atggcccgca gcgctctcct gcttccttcc cccgggcagg agctgtggga ggtacgaagc
aggagttcac cggcaggact tcccgtgcat gcaacccgga gtctgcggga cctggaggga
geeggeeaac etgageagte getaagettt cagteetgga etteageaga geeegetget
agageetteg gtgagaeget tegtgeecag ceatggttee tgeageaaat catetttgee
qatcetqtca qqeteqacqa ceqtetcaaq aaccqatgge geeceegtge ttgacetaag
caggagcaca gcttgtagct ccag
<210> 72
<211> 185
<212> PRT
<213> Rattus norvegicus
<400> 72
Met Asp Leu Ser Ala Leu Ala Ser Ser Arg Glu Val Arg Gly Pro Gly
                                    10
Pro Gly Ala Pro Val Asn Arg Pro Leu Leu Pro Leu Leu Leu Leu
                                25
Leu Leu Pro Leu Pro Ala Ser Ala Trp Tyr Lys His Val Ala Ser
                            40
Pro Arg Tyr His Thr Val Gly Arg Ala Ser Gly Leu Leu Met Gly Leu
                        55
Arg Arg Ser Pro Tyr Leu Trp Arg Ala Leu Gly Gly Ala Ala Gly
                    70
                                        75
Pro Leu Val Gly Leu Pro Gly Gln Met Ala Arg Ser Ala Leu Leu Leu
                85
                                    90
Pro Ser Pro Gly Gln Glu Leu Trp Glu Val Arg Ser Arg Ser Pro
                                105
Ala Gly Leu Pro Val His Ala Thr Arg Ser Leu Arg Asp Leu Glu Gly
                            120
                                                125
Ala Gly Gln Pro Glu Gln Ser Leu Ser Phe Gln Ser Trp Thr Ser Ala
Glu Pro Ala Ala Arg Ala Phe Gly Glu Thr Leu Arg Ala Gln Pro Trp
                    150
                                        155
Phe Leu Gln Gln Ile Ile Phe Ala Asp Pro Val Arg Leu Asp Asp Arg
                165
                                    170
Leu Lys Asn Arg Trp Arg Pro Arg Ala
            180
<210> 73
<211> 23
<212> PRT
<213> Rattus norvegicus
<400> 73
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                    10
Ser Gly Leu Leu Met Gly Leu
            20
<210> 74
<211> 30
<212> PRT
<213> Rattus norvegicus
<400> 74
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                    10
Ser Gly Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp
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	2	20	2	25	30		
<210><211><211><212><213>	69 DNA	norvegicu	18				
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<210><211><212><212><213>	90 DNA	norvegicu	15				
	caagc ac		ccctcgctat ctacctgtgg	cacacagtgg	gtcgtgcctc	cgggctgctc	60 90
<210><211><211><212><213>	23 DNA	cial Seque	ence				
<220> <223>	Probe						
<400> ttcato		cctggccat	cgc 23				
<210><211><211><212><213>	24 DNA	cial Seque	ence				
<220> <223>	Primer						
<400> acccag		gtcctaacc	ctcc 24				
<210><211><211><212><213>	24 DNA	cial Seque	ence				
<220> <223>	Primer						
<400> cctgct		cctcccaca	gctc 24				
<210><211><212><212><213>	311	sculus					

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ggactcccag gaaccggccc ctgctgcccc tgctgctgct tctgctcttg ctaccgctgc
                                                                    120
ccgccagcgc ctggtataag cacgtggcga gtccccgcta tcacacagtg ggtcgtgcct
                                                                    180
                                                                    240
ceqqqctqct catqqqqctq cqccqctcqc cctaccaqtq gcqccqtqcc ctqqqcqqqqq
ctgctggacc cctctcccgg ctcccaggac cggtcgcccg cggcgctctc ctgcttcctt
                                                                    300
cctcagggca g
                                                                    311
<210> 81
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 81
catgagcagc ccggaggcac gacc 24
<210> 82
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 82
gtgatagcgg ggactcgcca cgtg 24
<210> 83
<211> 237
<212> DNA
<213> Mus musculus
<400> 83
aaaqqctqta qtcqcaccaa ctgactggtc tccatcctct ggagctccga cgtgctcgtt
                                                                    60
ctcqqaqaca taaacccaqt tcttqtccta accctccaag gggcaattga cgtgagcgcg 120
ctqqcqtcta acaqaqaaqt acqqqqccct qqqccqgqa ctcccaggaa ccggccctg 180
ctgcccctgc tgctgcttct gctcttgcta ccgctgcccg ccagcgcctg gtataag
                                                                    237
<210> 84
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 84
acccagttct tgtcctaacc ctcc 24
<210> 85
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
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<223> Primer
<400> 85
gggcaattga cgtgagcgcg ctgg 24
<210> 86
<211> 598
<212> DNA
<213> Mus musculus
<400> 86
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                                                                     60
ccctgctgct gcttctgctc ttgctaccgc tgcccgccag cgcctggtat aagcacgtgg
                                                                    120
cgagtccccg ctatcacaca gtgggtcgtg cctccgggct gctcatgggg ctgcgccgct
                                                                    180
cgccctacca gtggcgccgt gccctgggcg gggctgctgg acccctctcc cggctcccag
                                                                    240
gaccggtcgc ccgcggcgct ctcctgcttc cttcctcagg gcaggagctg tgggaggtac
gaagcaggag ctcacctgca gggcttcccg tccatgcacc ctggagtccg cgggacctgg 360
agggagtccg ccaaccggag cagtcgctaa gccttcactc ctggatctca gaggagcccg
                                                                    420
ctgctagagc cttcggagag acgcttcgtg cccagccatg gttcctgcag caagtcatct
                                                                    480
ttgccgatcc tgtcaggccc aagaaccgat ggcgccccca tgcttgacct aggcaggagc
                                                                    540
acagettgaa geteeagtea ggeetegtgt ttetggteaa taaaaceaae etgattee
                                                                    598
<210> 87
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 87
aaaggctgta gtcgcaccaa c 21
<210> 88
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 88
accagaaaca cgaggcctga c 21
<210> 89
<211> 659
<212> DNA
<213> Mus musculus
<400> 89
tgactggtct ccatcctctg gagctccgac gtgctcgttc tcggagacat aaacccagtt
                                                                     60
cttgtcctaa ccctccaagg ggcaattgac gtgagcgcgc tggcgtctaa cagagaagta
                                                                    120
cggggccctg ggcccgggac tcccaggaac cggcccctgc tgcccctgct gctgcttctg
                                                                    180
ctcttgctac cgctgcccgc cagcgcctgg tataagcacg tggcgagtcc ccgctatcac
                                                                    240
acagtgggtc gtgcctccgg gctgctcatg gggctgcgcc gctcgcccta ccagtggcgc
                                                                    300
cgtgccctgg gcggggctgc tggacccctc tcccggctcc caggaccggt cgcccgcggc
                                                                    360
gctctcctgc ttccttcctc agggcaggag ctgtgggagg tacgaagcag gagctcacct
                                                                    420
gcagggette cegtecatge accetggagt cegegggace tggagggagt cegecaaceg
                                                                    480
```

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gagcagtcgc taagccttca ctcctggatc tcagaggagc ccgctgctag agccttcgga 540 qaqacqcttc qtqcccaqcc atggttcctg cagcaagtca tctttgccga tcctgtcagg 600 cccaagaacc gatggcgccc ccatgcttga cctaggcagg agcacagctt gaagctcca <210> 90 <211> 176 <212> PRT <213> Mus musculus <400> 90 Leu Ala Ser Asn Arg Glu Val Arg Gly Pro Gly Pro Gly Thr Pro Arg Asn Arg Pro Leu Leu Pro Leu Leu Leu Leu Leu Leu Leu Leu Pro Leu Pro Ala Ser Ala Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Gln Trp Arg Arg Ala Leu Gly Gly Ala Ala Gly Pro Leu Ser Arg Leu Pro Gly Pro Val Ala Arg Gly Ala Leu Leu Pro Ser Ser Gly Gln Glu Leu Trp Glu Val Arg Ser Arg Ser Ser Pro Ala Gly Leu Pro Val 105 His Ala Pro Trp Ser Pro Arg Asp Leu Glu Gly Val Arg Gln Pro Glu 120 Gln Ser Leu Ser Leu His Ser Trp Ile Ser Glu Glu Pro Ala Ala Arg 135 140 Ala Phe Gly Glu Thr Leu Arg Ala Gln Pro Trp Phe Leu Gln Gln Val 150 155 Ile Phe Ala Asp Pro Val Arg Pro Lys Asn Arg Trp Arg Pro His Ala 170 165 <210> 91 <211> 23 <212> PRT <213> Mus musculus <400> 91 Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala 10 Ser Gly Leu Leu Met Gly Leu 20 <210> 92 <211> 30 <212> PRT <213> Mus musculus <400> 92 Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala 10 Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Gln Trp 25 <210> 93 <211> 69

<212> DNA

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<213> Mus musculus
<400> 93
                                                                      60
tggtataagc acgtggcgag tccccgctat cacacagtgg gtcgtgcctc cgggctgctc
                                                                      69
atggggctg
<210> 94
<211> 90
<212> DNA
<213> Mus musculus
<400> 94
tggtataagc acgtggcgag tccccgctat cacacagtgg gtcgtgcctc cgggctgctc
                                                                      60
                                                                      90
atggggctgc gccgctcgcc ctaccagtgg
<210> 95
<211> 23
<212> PRT
<213> Artificial Sequence
<221> Human GPR8 ligand (1-23) oxidant
<222> 21
<223> Xaa is Met(0)
<400> 95
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
Ala Gly Leu Leu Xaa Gly Leu
            20
<210> 96
<211> 22
<212> PRT
<213> Homo sapiens
<400> 96
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
                                                          15
                5
Ala Gly Leu Leu Met Gly
            20
<210> 97
<211> 21
<212> PRT
<213> Homo sapiens
<400> 97
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
Ala Gly Leu Leu Met
            20
<210> 98
<211> 20
<212> PRT
<213> Homo sapiens
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<400> 98
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
Ala Gly Leu Leu
            20
<210> 99
<211> 19
<212> PRT
<213> Homo sapiens
<400> 99
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
Ala Gly Leu
<210> 100
<211> 18
<212> PRT
<213> Homo sapiens
<400> 100
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     1.0
Ala Gly
<210> 101
<211> 17
<212> PRT
<213> Homo sapiens
<400> 101
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
Ala
<210> 102
<211> 16
<212> PRT
<213> Homo sapiens
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
<210> 103
<211> 23
<212> PRT
<213> Artificial Sequence
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<221> Porcine GPR8 ligand (1-23) oxidant
<222> 21
<223> Xaa is Met(O)
<400> 103
Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                5
                                     10
```

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Ala Gly Leu Leu Xaa Gly Leu
            20
<210> 104
<211> 23
<212> PRT
<213> Artificial Sequence
<221> Rat/mouse GPR8 ligand (1-23) oxidant
<222> 21
<223> Xaa is Met(0)
<400> 104
Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
Ser Gly Leu Leu Xaa Gly Leu
            20
<210> 105
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<221> Fmoc-added human GPR8L (1-23)
<222> 1
<223> Xaa is Fmoc-Trp
<400> 105
Xaa Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                      10
Ala Gly Leu Leu Met Gly Leu
            20
<210> 106
<211> 23
<212> PRT
<213> Artificial Sequence
<221> [Nα-Acetyl-Trp1]-human GPR8 ligand (1-23)
<222> 1
<223> Xaa is Ac-Trp
<400> 106
Xaa Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                      10
Ala Gly Leu Leu Met Gly Leu
            20
<210> 107
<211> 22
<212> PRT
<213> Homo sapiens
<400> 107
Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala
```

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```
10
                                                          15
Gly Leu Leu Met Gly Leu
            20
<210> 108
<211> 20
<212> PRT
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His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu
Leu Met Gly Leu
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<211> 15
<212> PRT
<213> Homo sapiens
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Arg Tyr His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu
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<211> 9
<212> PRT
<213> Homo sapiens
<400> 110
Arg Ala Ala Gly Leu Leu Met Gly Leu
<210> 111
<211> 22
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<213> Artificial Sequence
<221> [N-Acetyl-Tyr2]-human GPR8 ligand (2-23)
<222> 1
<223> Xaa is Ac-Tyr
<400> 111
Xaa Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala Ala
Gly Leu Leu Met Gly Leu
            20
<210> 112
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<221> [D-Trp1] -human GPR8 ligand (1-23)
<222> 1
<223> Xaa is D-Trp
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<400> 112 Xaa Tyr L 1	ys His Val A 5	la Ser Pro	Arg Tyr His	Thr Val Gly	y Arg Ala 15	
	eu Leu Met G 20	ly Leu	10		13	
<210> 113 <211> 22 <212> PRT <213> Art		ence				
<222> 1	3-Indoleprop			ligand (2-2	23)	
1	is Val Ala S 5 eu Met Gly L		Tyr His Thr 10	Val Gly Arg	g Ala Ala 15	
ory bea b	20	cu				
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<210> 115 <211> 63 <212> DNA <213> Hom						
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<210> 116 <211> 60 <212> DNA <213> Hom						
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<210> 118						

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<211> 54 <212> DNA <213> Homo	sapiens					
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<210> 122 <211> 60 <212> DNA <213> Homo	sapiens					
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<210> 123 <211> 45 <212> DNA <213> Homo	sapiens					
<400> 123 cgctaccaca	cggtgggccg	cgccgctggc	ctgctcatgg	ggctg		45
<210> 124 <211> 27 <212> DNA <213> Homo	sapiens					
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<210> 125 <211> 51						

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<212> DNA
<213> Sus scrofa
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tggtacaagc acacggcgag tececgetac cacacggtgg geogegeege g
                                                                     51
<210> 126
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<212> PRT
<213> Rattus norvegicus
<400> 126
Met His Asn Leu Ser Leu Phe Glu Pro Gly Arg Gly Asn Val Ser Cys
                                     10
Gly Gly Pro Phe Leu Gly Cys Pro Asn Glu Ser Asn Pro Ala Pro Leu
                                 25
Pro Leu Pro Gln Pro Leu Ala Val Ala Val Pro Val Val Tyr Gly Val
                             40
Ile Cys Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu
                         55
Leu Arg Thr Pro Arg Met Lys Thr Val Thr Asn Val Phe Ile Leu Asn
                                         75
Leu Ala Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile
                 85
                                     90
Ala Asp Phe Leu Leu Arg Arg Trp Pro Phe Gly Glu Val Met Cys Lys
                                105
Leu Ile Val Ala Val Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe
                            120
                                                125
Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala
                        135
                                            140
Glu Ser Arg Arg Val Ser Gly Arg Thr Tyr Gly Ala Ala Arg Ala Val
                    150
                                        155
Ser Leu Ala Val Trp Ala Leu Val Thr Leu Val Val Leu Pro Phe Ala
                165
                                    170
Val Phe Ala Arg Leu Asp Glu Glu Gln Gly Arg Arg Gln Cys Val Leu
                                185
Val Phe Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr
                            200
Thr Leu Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Ala Leu
                        215
                                            220
Tyr Ile Thr Leu Leu Cys Arg Leu Arg Ala Ile Gln Leu Asp Ser His
                    230
                                        235
Ala Lys Ala Leu Asp Arg Ala Lys Lys Arg Val Thr Leu Leu Val Val
                                    250
Ala Ile Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser
                                265
Thr Ile Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile
                            280
Gly Ile Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu
                                            300
                        295
Asn Pro Phe Leu Tyr Ala Phe Leu Asp Asp Ser Phe Arg Arg Ser Leu
                                                             320
                    310
                                        315
Arg Gln Leu Val Ser Cys Arg Thr Ala
                325
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<210> 127 <211> 987

<212> DNA

<213> Rattus norvegicus

<213> Artificial Sequence

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ttgggctgtc ctaacgagtc gaacccagcg cctctgccac tgccgcagcc tctggcggta
                                                                   120
geagtgcctg tggtctacgg ggtgatctgc geggtgggac tggcgggcaa ctccgcggtg 180
ctgtacgtac tgctgcgcac gccgcgcatg aagactgtta ccaacgtgtt cattctcaac
ctggctatcg cggacgagct cttcaccctc gtgctgccca tcaacatcgc ggacttcctg
ctgaggcgct ggcccttcgg ggaagtcatg tgcaagctca tcgtggctgt cgaccagtac
aacactttct ctagcctcta cttcctcgcc gtcatgagcg cagaccgcta cctggttgtc 420
ctggccacag ccgagtcgcg ccgggtgtcc gggcgcactt atggtgcagc gcgggctgtc 480
agtetggegg tgtgggeget ggtgacattg gtegtgetge ettttgeggt attegeeegg 540
ctggacgaag 'agcagggtcg gcgtcagtgc gtgctggtct tcccgcagcc tgaggccttc 600
tggtggcgcg ccagccgtct gtacactcta gtgttgggct tcgccatccc ggtgtccacc 660
atotgegeee totatateae cetgttgtge egactgegtg etatecaget agacageeae 720
gccaaggccc tggaccgtgc caagaagcgc gtgaccttgt tggtggtggc gattctggct 780
gtgtgcctcc tctgctggac accgtaccac ctgagcacca tagtggcgct caccaccgac 840
ctcccgcaaa caccgttggt catcggcatc tcttacttca tcaccagtct gagctatgcc 900
aacagetgee teaaccettt cetetatgee tteetggaeg acagetteeg caggageetg 960
cggcagctgg tgtcatgccg cacagcc
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<210> 128
<211> 28
<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 128
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<210> 129
<211> 28
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 129
actagttcag gctgtgcggc atgacacc
<210> 130
<211> 19
<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 130
gttggtggtg gcgattctg
                                    19
<210> 131
<211> 19
<212> DNA
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<400> 131
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<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 132
gtccgcgatg ttgatgggca gcac
<210> 133
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 133
gaagagetea teggegatag eeag
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<210> 134
<211> 440
<212> DNA
<213> Mus musculus
<400> 134
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tcacgcgggg agtgcctggg tgcagatccc tgtaaacgtg ggcgcataaa cctcgagttt 120
cgcggggctg ctgagtggaa tcctggtggt cgcctgctct ccagccctct ccaagatgca 180
taacttaacg cttttcgagt ctggagggga caacgtgtct tgcggcggct catctttggg 240
ctgtcccaac gggtccagcc tggctcctct gccgctgccg cagccactgg cggtagcagt 300
gcctgtcgtc tacggggtaa tttgcgccgt gggactggct ggcaactctg cggtgctgta 360
cgtactgctg cgcacgccgc gcatgaagac tgtcaccaac gtgttcatcc tcaacctggc 420
tatcgccgat gagctcttca
                                                                    440
<210> 135
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 135
tttcgcgggg ctgctgagtg gaat
                            24
<210> 136
<211> 24
<212> DNA
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```
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<220>
<223> Primer
<400> 136
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<210> 137
<211> 1083
<212> DNA
<213> Mus musculus
<400> 137
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gcataactta acgcttttcg agtctggagg ggacaacgtg tcttgcggcg gctcatcttt
gggctgtccc aacgggtcca gcctggctcc tctgccgctg ccgcagccac tggcggtagc
agtgcctgtc gtctacgggg taatttgcgc cgtgggactg gctggcaact ctgcggtgct
gtacgtactg ctgcgcacgc cgcgcatgaa gactgtcacc aacgtgttca tcctcaacct
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gaggcgctgg cccttcgggg aggtcatgtg caagctcatt gtagccgtcg accagtacaa
cactttetet agestetast testegesgt catgageges gasegatase tggtggttet
ggccacagca gagtcgcgcc gggtgtccgg gcgcacttac ggtgcagcgc gtgctgtcag
totggeggtg tgggegetgg tgaegetggt egtgetgece tttgeggtat tegetegget
ggacgaggag cagggtcggc gccagtgcgt gctggtcttc ccgcagcccg aggccttctg
gtggcgtgcc agccgtctct acacactagt attgggcttt gccatcccgg tgaccaccat
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ctgtgctctc tataccactc tgctctgccg actgcgtgct atccagctag atagccacgc
caaggeettg gategtgeea agaagegegt gaeettgttg gtggeggega ttetggetgt
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cccgcaaacg ccgctggtca tcggcatctc ttacttcatc accagcctga gctatgctaa
cagetgeete aaccetttee tetatgeett eetggaegae agetteegea gaageeteeg 1020
gcaattggtg tcatgccgtt cagcctgatg ccctttccac ctctttccac cgcaggcagc 1080
act
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<211> 329
<212> PRT
<213> Mus musculus
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Gly Gly Ser Ser Leu Gly Cys Pro Asn Gly Ser Ser Leu Ala Pro Leu
                                 25
Pro Leu Pro Gln Pro Leu Ala Val Ala Val Pro Val Val Tyr Gly Val
                             40
Ile Cys Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu
                         55
Leu Arg Thr Pro Arg Met Lys Thr Val Thr Asn Val Phe Ile Leu Asn
                     70
                                         75
Leu Ala Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile
                                     90
Ala Asp Phe Leu Leu Arg Arg Trp Pro Phe Gly Glu Val Met Cys Lys
                                105
Leu Ile Val Ala Val Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe
                            120
Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala
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135

140

130

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Glu Ser Arg Arg Val Ser Gly Arg Thr Tyr Gly Ala Ala Arg Ala Val
                    150
Ser Leu Ala Val Trp Ala Leu Val Thr Leu Val Val Leu Pro Phe Ala
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Val Phe Ala Arg Leu Asp Glu Glu Gln Gly Arg Arg Gln Cys Val Leu
                                185
Val Phe Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr
                            200
                                                 205
Thr Leu Val Leu Gly Phe Ala Ile Pro Val Thr Thr Ile Cys Ala Leu
                        215
                                             220
Tyr Thr Thr Leu Leu Cys Arg Leu Arg Ala Ile Gln Leu Asp Ser His
                    230
                                         235
Ala Lys Ala Leu Asp Arg Ala Lys Lys Arg Val Thr Leu Leu Val Ala
                                    250
                245
Ala Ile Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser
                                265
                                                     270
Thr Ile Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile
                            280
                                                 285
        275
Gly Ile Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu
                        295
                                            300
Asn Pro Phe Leu Tyr Ala Phe Leu Asp Asp Ser Phe Arg Arg Ser Leu
                    310
                                        315
Arg Gln Leu Val Ser Cys Arg Ser Ala
                325
<210> 139
<211> 987
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<213> Mus musculus
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gcagtgcctg tcgtctacgg ggtaatttgc gccgtgggac tggctggcaa ctctgcggtg
ctgtacgtac tgctgcgcac gccgcgcatg aagactgtca ccaacgtgtt catcctcaac
ctggctatcg ccgatgagct cttcaccetc gtgctgccca tcaacatcgc ggacttcctg
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aacactttct ctagcctcta cttcctcgcc gtcatgagcg ccgaccgata cctggtggtt
ctggccacag cagagtcgcg ccgggtgtcc gggcgcactt acggtgcagc gcgtgctgtc
agtetggegg tgtgggeget ggtgaegetg gtegtgetge cetttgeggt attegetegg
ctggacgagg agcagggtcg gcgccagtgc gtgctggtct tcccgcagcc cgaggccttc
tgqtqqcqtq ccaqccqtct ctacacacta qtattqqqct ttqccatccc ggtqaccacc
atctgtgctc tctataccac tctgctctgc cgactgcgtg ctatccagct agatagccac
                                                                    720
gccaaggccc tggatcgtgc caagaagcgc gtgaccttgt tggtggcggc gattctggct
qtqtqcctcc tctqctqqac gccttatcac ctgagtacca tagtggccct caccaccgac
                                                                    840
ctcccgcaaa cgccgctggt catcggcatc tcttacttca tcaccagcct gagctatgct
                                                                    900
aacagetgee teaaceettt cetetatgee tteetggaeg acagetteeg cagaageete
                                                                    960
                                                                    987
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<210> 140
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<223> Probe
<400> 140
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tcctctgctg gacaccgtac cacctga
                                     27
<210> 141
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<212> DNA
<213> Artificial Sequence
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<223> Primer
<400> 141
atcqatatqq acaacqcctc qttctcgqag cc 32
<210> 142
<211> 32
<212> DNA
<213> Artificial Sequence
<223> Primer
<400> 142
actagtgtca ggctgccgcg cggcaagtta tc 32
<210> 143
<211> 1000
<212> DNA
<213> Homo sapiens
<400> 143
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                                                                    60
ceggegetga getgetecaa egegtegaet etggegeege tgeeggegee getggeggtg 120
gctgtaccag ttgtctacgc ggtgatctgc gccgtgggtc tggcgggcaa ctccgccgtg
ctgtacgtgt tgctgcgggc gccccgcatg aagaccgtca ccaacctgtt catcctcaac
                                                                   240
etggecateg ecgaegaget etteaegetg gtgetgeeca teaacatege egaetteetg 300
ctgcggcagt ggcccttcgg ggagctcatg tgcaagctca tcgtggctat cgaccagtac 360
aacacettet ccageeteta etteeteace gteatgageg cegacegeta cetggtggtg 420
ttggccactg cggagtcgcg ccgggtggcc ggccgcacct acagcgccgc gcgcgcggtg 480
ageetggeeg tgtgggggat egteaeacte gtegtgetge cettegeagt ettegeeegg
                                                                   540
ctagacgacg agcagggccg gcgccagtgc gtgctagtct ttccgcagcc cgaggccttc 600
tggtggcgcg cgagccgcct ctacacgctc gtgctgggct tcgccatccc cgtgtccacc 660
atctqtqtcc tctataccac cctqctqtqc cqqctqcatq ccatqcqqct ggacagccac 720
qccaaqqccc tqqaqcqcqc caaqaaqcqq qtqaccttcc tqqtqqtqqc aatcctqqcq 780
gtgtgcctcc tctgctggac gccctaccac ctgagcaccg tggtggcgct caccaccgac
ctcccgcaga cgccgctggt catcgctatc tcctacttca tcaccagcct gagctacqcc 900
aacagetgee teaacceett cetetacgee tteetggaeg ceagetteeg caggaacete 960
                                                                  1000
cgccagctga taacttgccg cgcggcagcc tgacactagt
<210> 144
<211> 328
<212> PRT
<213> Homo sapiens
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Pro Asp Pro Ala Leu Ser Cys Ser Asn Ala Ser Thr Leu Ala Pro Leu
            20
                                25
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Pro Ala Pro Leu Ala Val Ala Val Pro Val Val Tyr Ala Val Ile Cys
                            40
Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu Leu Arg
Ala Pro Arg Met Lys Thr Val Thr Asn Leu Phe Ile Leu Asn Leu Ala
                    70
                                        75
Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile Ala Asp
                                   90
Phe Leu Leu Arg Gln Trp Pro Phe Gly Glu Leu Met Cys Lys Leu Ile
                              105
Val Ala Ile Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe Leu Thr
                           120
Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala Glu Ser
                        135
Arg Arg Val Ala Gly Arg Thr Tyr Ser Ala Ala Arg Ala Val Ser Leu
                    150
Ala Val Trp Gly Ile Val Thr Leu Val Val Leu Pro Phe Ala Val Phe
                                    170
Ala Arg Leu Asp Asp Glu Gln Gly Arg Arg Gln Cys Val Leu Val Phe
           180
                               185
Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr Thr Leu
                           200
Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Val Leu Tyr Thr
                       215
                                            220
Thr Leu Leu Cys Arg Leu His Ala Met Arg Leu Asp Ser His Ala Lys
                   230
                                       235
Ala Leu Glu Arg Ala Lys Lys Arg Val Thr Phe Leu Val Val Ala Ile
               245
                                   250
Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser Thr Val
                               265
                                                   270
            260
Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile Ala Ile
                            280
                                                285
Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu Asn Pro
                       295
                                           300
Phe Leu Tyr Ala Phe Leu Asp Ala Ser Phe Arg Arg Asn Leu Arg Gln
                   310
                                     315
Leu Ile Thr Cys Arg Ala Ala Ala
               325
<210> 145
<211> 32
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<213> Artificial Sequence
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<400> 145
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<210> 146
<211> 21
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<223> Primer
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```
<400> 146
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<223> Primer
<400> 147
catgaagacc gtcaccaacc t 21
<210> 148
<211> 19
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 148
ccagcgtgaa gagctcgtc 19
<210> 149
<211> 20
<212> PRT
<213> Artificial Sequence
<223> [Phe2] human GPR8 ligand (1-20)
Trp Phe Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
                                     10
Ala Gly Leu Leu
            20
<210> 150
<211> 60
<212> DNA
<213> Artificial Sequence
<220>
<223> Sequence encoding [Phe2] human GPR8 ligand (1-20)
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                                                                     60
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